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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/196,916 11/20/98 RUMBACH A 364/51

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IM62/0926

EXAMINER

MCNEIL, J

ART UNIT

PAPER NUMBER

1775

DATE MAILED:

09/26/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/196,916

Applicant(s)

Rumbach et al

Examiner

Jennifer McNeil

Group Art Unit

1775



☒ Responsive to communication(s) filed on Jul 17, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-17 is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-17 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 1775

DETAILED ACTION

Specification

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

- (a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.
- (b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.
- (c) In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because applicant has failed to provide an adequate written description of the invention. The copper-nickel-zinc alloy is reported in percentages, however, it is never clarified whether this is atomic or weight percent.

Art Unit: 1775

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The proper notation of the percentages, whether atomic or weight, of the alloy is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The specification and claims fail to disclose whether the alloy is reported in atomic or weight percent. This omission renders the claims not enabled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor

Art Unit: 1775

and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morikawa et al (US 4,525,434) in view of McDonald et al (US 4,631,171). Morikawa et al teach a copper alloy having high resistance to oxidation including 10-30 wt% Zn, and 0.2-10 wt% Ni, with the balance being Cu for use as an electrical lead (see column 2, lines 11-44). Morikawa et al teach a copper or copper alloy substrate clad with the above composition. Morikawa et al further teach that zinc increases the strength of the alloy and reduces casting defects, and nickel increases strength and heat resistance (see column 2, lines 63-68 and column 3, lines 8-10). The thickness of the clad materials may be 0.025 to .25 mm thick (see column 4, lines 15-37). Morikawa et al do not give another range for the nickel component of the alloy. McDonald et al teach a copper-zinc-nickel alloy which is compatible with a number of other materials and provides high strength. This alloy is known as nickel-silver and is composed of 55-65% copper, 17-27% zinc, and 15-20% nickel (see column 1, lines 34-42). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the copper-nickel-zinc alloy taught by McDonald et al as the cladding material in the device taught by Morikawa et al to provide a material with a higher melting point, which is compatible with other materials, and which provides higher strength.

Art Unit: 1775

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morikawa et al (US 4,525,434) and McDonald (US 4,631,171) as applied to claim 1 above and further in view of Meyrat et al (US 4,842,536). Morikawa et al teach a metal clad lead with a copper-zinc-nickel alloy and McDonald et al teach a copper-zinc-nickel alloy as mentioned above, and further both teach the applicability in electrical settings, but neither specifically teach the use of the alloys as a plug connector. Meyrat et al teach a plug connector having a contact element composed of an alloy of nickel, copper, and zinc (col. 6, lines 9-20). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a copper-nickel-zinc alloy as taught by McDonald et al clad on copper as taught by Morikawa as a component of a connector taught by Meyrat et al to provide a connection with good compatibility with other materials, a high melting point, high strength, and good heat dissipation and electrical conductivity. All three references teach the use of a copper-zinc-nickel alloy as a component for electrical conductivity.

Allowable Subject Matter

Claims 3-8, and 12-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or render obvious an electrically conductive metal strip for the production of electrical components comprising a core strip made of a copper material; and a metal facing made of a copper-nickel-zinc alloy, roll-bonded clad on at least one side of the substrate, said

Art Unit: 1775

metal facing consisting of CuNi18Zn27 by weight percent. The prior art also does not teach or render obvious a metal facing of the above strip with a composition consisting of CuNi18Zn20, or CuNi12Zn24 by weight percent.

Response to Arguments

Applicant's arguments filed 07/17/00 have been fully considered but they are not persuasive. Applicant's arguments regarding the 112 first paragraph rejection have been noted. However, several references are provided which report compositions in atomic percent. For instance, US 4,497,527, specifically col. 4, lines 48-53; US 4,925,407 col. 2, lines 15-35; US 5,967,860 col. 3, lines 47-55; and US 5,236,789 col. 5, lines 25-58. Specifically US 5,236,789 shows specific calculations for conversion between weight percent and atomic percent as well as notation for both in Table 1. It is therefore established that compositions directed to alloys used in electrical applications are not solely reported in weight percent and are in actuality reported using both notations. In light of this, it is not clear how a person skilled in the art would instantly recognize that the percentages recited in the instant application are on a weight percent basis, when in fact it is shown that two separate notations are used. The two non-patent references provided by Applicant are not required to give a clear, exact, and concise disclosure and are regarded as moot. The patent provided by applicant refers to a commercially known composition which would be available to anyone skilled in the art. The fact that the patent document does not reflect the notation of the percent composition does not affect a skilled person's ability to obtain

Art Unit: 1775

this information and does not render the patent non-enabled. In view of this, Applicant has not remedied the rejection for non-enablement.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e. an essentially manganese free copper alloy) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 17, each reference refers to the use of their device as an electrical connector or conductor and each use a copper-nickel-zinc alloy.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

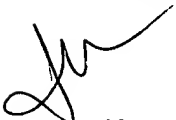
Art Unit: 1775

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer McNeil whose telephone number is (703) 305-0553. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones, can be reached at (703) 308-3822.

When filing a fax in Group 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of this application. This will expedite processing of your papers. The fax number for this Group are (703) 305-3599 for "Official" faxes and (703) 3055436 for "Unofficial" faxes.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0661.



Jennifer McNeil
Patent Examiner
AU 1775



DEBORAH JONES
SUPERVISORY PATENT EXAMINER